AMENDMENTS TO THE CLAIMS

Claim 1.   (Currently Amended)   A cellular system using a code division multiple access (CDMA) scheme, comprising:

N (N is a positive integer greater than 1) pilot channels for transmitting reference signals whose transmission signals are known in advance; and

M (M is a positive integer greater than 1) data channels for transmitting information;

wherein each of said M data channels is made to dynamically correspond to one or a plurality of said N pilot channels.

Claim 2.   (Original)   A system according to claim 1, wherein each of said N data channels is made to correspond to one of said M pilot channels which goes through the same transmission path.

Claim 3.   (Previously Presented)   A system according to claim 1, wherein said pilot channel is used for coherent detection of at least said data channel to which said pilot channel corresponds.

Claim 4.   (Previously Presented)   A system according to claim 1, wherein said pilot channel is used for transmission power control on at least said data channel to which said pilot channel corresponds.

Claim 5.   (Original)   A system according to claim 1, wherein a correspondence between said pilot channel and said data channel is newly determined at least immediately before and every time said data channel is used.

3

Claim 6.   (Original)   A system according to claim 1, wherein a correspondence between said pilot channel and said data channel can be changed during use of said data channel by notifying a new correspondence.

Claim 7.   (Original)   A system according to claim 1, wherein said pilot channel stops transmission when use of all data channels made to correspond to said pilot channel is terminated.

Claim 8.   (Original)   A system according to claim 2, wherein when a pilot channel which goes through the same transmission path as that for a data channel to be newly used is not being used for transmission, a new pilot channel which goes through the same transmission path as that for said data channel is generated and used to start transmission.

Claim 9.   (Original)   A system according to claim 1, wherein when channels used for transmission/reception with the same antenna directivity are determined as channels which go through the same transmission path.

Claim 10.   (Original)   A system according to claim 2, wherein when channels used for transmission/reception with the same antenna directivity are determined as channels which go through the same transmission path.

Claim 11.   (Previously Presented)   A cellular system using a code division multiple access (CDMA) scheme, comprising:

transmission means having N (N is a positive integer) pilot channels;

transmission/reception means having M (M is a positive integer) data channels;   antenna means having L (L is a positive integer) types of directivity patterns; and

notification means for dynamically notifying a correspondence between said data channels and said pilot channels,

wherein information to be transmitted/received by using each of said M data channels is transmitted/received by selecting an optimal pattern from the L types of directivity patterns in accordance with a position of a mobile terminal used for communication,

a reference signal to be transmitted by using each of said N pilot channels is transmitted by selecting one pilot channel for each directivity pattern used for said data channel, and

said notification means notifies a pilot channel used for transmission with the same directivity pattern as that for said data channel.

Claim 12.   (Currently Amended)   A reference signal transmission method in a cellular system using a code division multiple access (CDMA) scheme of transmitting N (N is a positive integer greater than 1) reference signals whose transmission signals are known in advance by using N pilot channels, and transmitting M (M is a positive integer greater than 1) pieces of information by using M data channels, the method comprising:

making each of said M data channels dynamically correspond to one or a plurality of said N pilot channels.

Claim 13.   (Previously Presented)   A reference signal transmission method in a cellular system using a code division multiple access (CDMA) scheme of transmitting reference signals by using N (N is a positive integer) pilot channels, transmitting/receiving information by using M (M is a positive integer) data channels, performing transmission/reception by using said data channels through

5

antenna means having L (L is a positive integer) types of directivity patterns, and dynamically notifying a correspondence between said data channels and said pilot channels through notification means, comprising the steps of:

transmitting/receiving information to be transmitted/received by using each of said M data channels by selecting an optimal pattern from the L types of directivity patterns in accordance with a position of a mobile terminal used for communication;

transmitting a reference signal to be transmitted by using each of said N pilot channels by selecting one of said pilot channels for each directivity pattern which is being used on said data channel; and

causing said notification means to notify a pilot channel which is being used for transmission with the same directivity pattern as that for said data channel.

Claim 14.   (Currently Amended)   A base station apparatus in a cellular system using a code division multiple access (CDMA), comprising:

N (N is a positive integer greater than 1) pilot channels for transmitting reference signals whose transmission signals are known in advance; and

M (M is a positive integer greater than 1) data channels for transmitting information,

wherein each of said M data channels is made to dynamically correspond to one or a plurality of said N pilot channels.

Claim 15.   (Previously Presented)   A base station apparatus in a cellular system using a code division multiple access (CDMA) scheme, comprising:

transmission means having N (N is a positive integer) pilot channels;

transmission/reception means having M (M is a positive integer) data channels;

6

antenna means having L (L is a positive integer) types of directivity

patterns; and

notification means for dynamically notifying a correspondence between

said data channels and said pilot channels,

wherein information to be transmitted/received by using each of said

M data channels is transmitted/received by selecting an optimal pattern from the L

types of directivity patterns in accordance with a position of a mobile terminal used

for communication,

a reference signal to be transmitted by using each of said N pilot

channels is transmitted by selecting one pilot channel for each directivity pattern

used for said data channel, and

said notification means notifies a pilot channel used for transmission

with the same directivity pattern as that for said data channel.